

**DRAFT ENVIRONMENTAL IMPACT STATEMENT  
ON  
IMPROVING THE REGULATORY PROCESS IN  
SOUTHWEST FLORIDA  
LEE and COLLIER COUNTIES, FLORIDA  
JULY 1999  
PREPARED BY  
U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT  
LEAD AGENCY**

**U.S. FISH AND WILDLIFE SERVICE  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
COOPERATING AGENCIES**

The study area consists of nearly one million acres comprising much of Lee and Collier Counties. This area is experiencing rapid growth and development. A number of valuable resources occur in the area including protected species, other fish and wildlife, wetlands, preserves, refuges, water supply, flood plain, shoreline, and other natural resources. Pressure for development has resulted in requests for permits from the U.S. Army Corps of Engineers to fill a substantial amount of wetlands in the study area. Based on data and maps from a Geographic Information System (GIS), the work of an Alternatives Development Group (ADG), water quality modeling, and other sources; we evaluated a number of predicted futures for the study area. The ADG consisted of a diverse group of stakeholders including proponents of development, agriculture, and conservation. Also represented were governmental officials at the Federal, state, and local level. The ADG met a number of times over a five-month period under the guidance of a professional and neutral facilitator. The ADG focused their efforts on developing alternatives and evaluating their effect. While the predicted futures were realistic possibilities, they varied from the more environmental friendly to pro development with minimum consideration of many environmental resources. This Environmental Impact Statement (EIS) examines five possible futures derived from the efforts of the ADG. This EIS discloses the criteria that if applied, would result in the different futures. In addition, it discusses the authorities of various regulatory agencies to affect the future. This EIS does not evaluate any specific permit action. This EIS does not change any regulation or policy. However, the information developed will enable the Corps (and other agencies) to better evaluate the cumulative impacts of future permit decisions in the study area. The EIS discloses several sets of questions which would be asked during the evaluation of a permit application to help evaluate cumulative impacts. Our goal is to make more efficient, timely, and appropriate permit decisions while balancing the demands of growth and development with protection of the environment.

For more information, contact Kenneth R. Dugger, U.S. Army Corps of Engineers, Planning Division, P.O. Box 4970, Jacksonville, Florida 32232-0019, phone (904) 232-1686 or facsimile 232-3442. You can also visit our web site at <http://www.saj.usace.army.mil/permit/swfeis/contents.htm>. Additional comments must be received in writing by August 23, 1999.



**US Army Corps  
of Engineers®**  
Jacksonville District



**SUMMARY**

**DRAFT ENVIRONMENTAL IMPACT STATEMENT**

**On**

**Improving the Regulatory Process in**

**Southwest Florida**

**Lee and Collier Counties, Florida**

**Need or Opportunity** The study area consists of a large portion of Lee and Collier Counties located in the southwestern portion of Florida. This area has experienced a rapid rate of growth. The area also contains a number of important resources including protected species, wetlands, marine and estuarine resources, habitat preserves, sanctuaries, other public and private conservation lands, and other important ecological resources. The rapid development of the area has an impact on these ecological resources as well as water quality, air quality, housing, agriculture, tourism, industry, and the local economy in general.

The U.S. Army Corps of Engineers, Jacksonville District (Corps), has received or expects to receive applications for permits to fill wetlands and to impact other waters of the United States in the study area. The number of acres of wetlands that would be impacted would be a substantial portion of the national total resulting from permit actions by the Corps of Engineers. The Corps must consider a number of public interest factors and comply with a number of Federal and State requirements in association with any permit action. Independent of the Corps' permit process, there are a number of Federal and State environmental requirements which also affect water quality, air quality, land use, protected species, etc. These are largely beyond the control of the Corps.

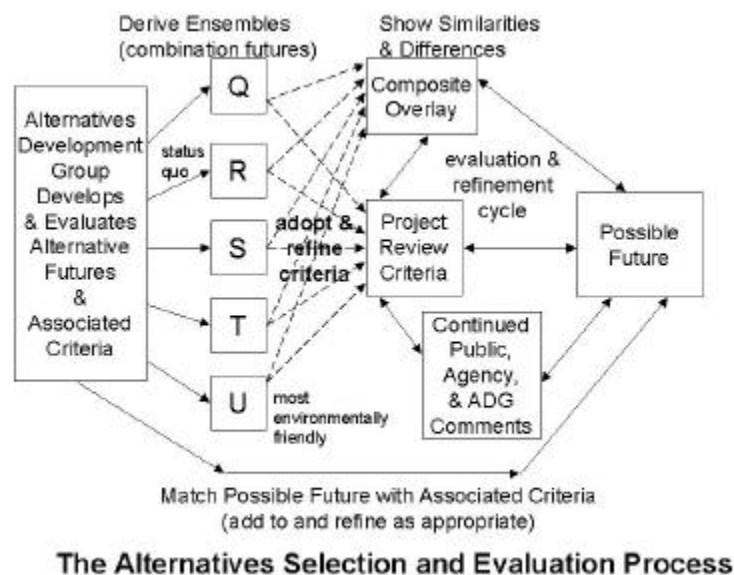
The EIS is being drafted to support future Corps' decisions on whether or not to issue Department of the Army Permits (Permit). As provided by the Clean Water Act of 1972, a person must apply for and be issued a Permit prior to placing fill in wetlands or other Waters of the United States. The EIS was initiated out of concern that the Corps' incremental (permit-by-permit) review may not be adequately addressing the cumulative (total) effects. To identify the total effects, the Corps must predict the total set of applications that will be submitted.

**Major Findings and Conclusions** This EIS discloses a set of predicted futures based on assumptions (or criteria) about future land use in the study area. The impacts of these futures on various environmental and socio-economic factors are explored (see diagram illustrating the process for alternative selection and evaluation). The foundation of this effort was accomplished by a diverse group of stakeholders (the Alternatives Development Group). The Alternatives Development Group (ADG) consists of representatives from local, State, and Federal governments; environmental groups; and business interest. This effort was further refined by the Corps with input from other agencies, groups, and the general public. Substantial input on protected species and other fish and wildlife resources was provided by the U.S. Fish and Wildlife Service. Substantial input on water quality was provided by the U.S. Environmental Protection Agency. The interaction of future land use with environmental requirements (especially the requirements of the Endangered Species Act and the Clean Water Act) are heavily considered in postulating the alternative futures.

### Identifying cumulative effects (Evaluation Factors).

All of the land use/cover futures (referred to as Ensembles) predict that suburban development will continue, but they differ in how much more. Approximately 20% of the study area is currently urban or suburban development (included in this 20% are "vacant" lots and lands with roads). The five Ensembles predict that the future extent of development will range from 31% to 41% of the study area. This increase in area of

development will occur as a result of a combination of: (1) filling wetlands (which requires a Corps permit); (2) clearing of non-wetland native vegetation; and (3) conversion of farmland. The Ensembles predict that from 5.5% to 6.6% of all the wetlands in the study area will be filled. The Ensembles report the predicted effects on a number of other factors as well (see **Table 3** in the EIS).



Using available information (Best Professional Judgement) The level of detail of the analysis corresponds to the size of the study area. The maps cover approximately 1,500 square miles and areas of urban, agriculture, and preservation were drawn literally using felt tips. The purpose of the maps is to describe broad concepts, for example, wildlife habitat corridors. The maps are not detailed delineation of parcel boundaries but are general locations of different land cover types. The group was asked to identify issues, the factors that influence those issues, and to create and evaluate how different configurations of land cover types would affect those issues. The participants used their expertise to identify which of the differences between the maps had the greatest influence on a particular set of issues. The Corps, in its permit application reviews, relies on this same use of "best professional judgement" and does not require applicants to develop elaborate economic or other logistics models.

Taking Stock (New Information) Currently, the Corps' evaluation of cumulative effects of an individual application is based on the issues identified by the Corps' project manager and concerns raised by the public or other agencies. This EIS provides new information. First, it provides a prediction of the total effect for twenty years of applications and other actions. Therefore, the effect of the individual application can now be compared to the total predicted effect. Second, it provides a comprehensive list of issues. Therefore, the Corps' project manager can ensure all appropriate issues are addressed in the evaluation of an individual application. Third, it provides a list of factors to evaluate the cumulative effect. Therefore, the Corps project manager can ensure the evaluations are consistent between individual applications.

**Alternatives** Rather than looking at alternatives for any particular permit action by the Corps, this EIS looks at various alternative futures for the study area. Based on how a particular permit action fits into the predicted future, this EIS provides information that will be useful in making decisions and determining cumulative impacts of individual permit action alternatives (including permit issuance, denial, project modification, or other mitigation).

Predicting Impacts (Alternatives) A group of local citizens and agency representatives (the ADG), at the Corps request, created and evaluated several predictions ("alternatives"). One of the alternatives

represents the *status quo* (not considering the information provided by this EIS). Other alternatives include ideas that the ADG collectively or individually felt might occur or would like to see occur. Since the Corps cannot control the type of applications that are submitted, the EIS will present these alternatives and the evaluations. This information will be used in the review future applications.

Relating to Local Planning (Comprehensive Plans) The Corps' authority is independent of Florida's Comprehensive Planning process; however, existing Comprehensive Plans make reference and defer to State and Federal wetland permitting. The Lee County Comprehensive Plan states "...the county will not undertake an independent review of the impacts to wetlands resulting from development of wetlands that is specifically authorized by a DEP or SFWMD dredge and fill permit or exemption." The Collier County Future Land Use Map includes an "Areas of Environmental Concern Overlay" and states "This overlay contains general representations for information purposes only; it does not constitute new development standards and has no regulatory effect." Collier County Land Development Code requires "...permits must be secured from State or Federal agencies prior to commencement of construction..." Comprehensive Plans designate land use. The Corps does not designate land use. Landowners are free to submit applications requesting authorization for any use. Landowners have submitted, and the Corps must accept, applications for permits that would fill wetlands for uses contrary to County Comprehensive Plans.

Presenting Futures (Ensembles) The EIS presents five predictions of what the study area will look like in approximately 20 years. Each prediction is called an "Ensemble" (assembled from predictions for the four sub-areas or "zooms"). The Ensembles are labeled "Q", "R", "S", "T", and "U". Each Ensemble consists of a map (showing location of development, preservation, agriculture, and other land cover types) and a variety of criteria that apply to activities within those land cover types. The ADG subdivided the study area into four pieces (called "Zoom A", "Zoom B" or "The Hub", "Zoom C", and "Zoom D") and created several alternatives for each. The ADG created a total of twenty-nine alternatives. Each Ensemble selects one alternative from Zoom A, one from Zoom B, one from Zoom C, and one from Zoom D so that the Ensemble covers the entire study area. Alternatives with similar characteristics were placed in the same Ensemble. For example, Ensemble R consists of the alternative in Zooms A that represents the Lee County Comprehensive Plan, the alternatives each from Zoom B, C, and D that represent the Lee County and Collier County Comprehensive Plans. The other Ensembles were assembled using alternatives that were similar to each other.

Comparing Visions (Overlay of Alternatives) The maps were overlaid to observe the similarities and differences in land cover/use among the different predicted futures (Ensembles). The various Ensembles propose the same future land cover type for 67% of the study area. In other words, the different Ensembles essentially share the same vision of the future landscape for 67% of the study area. Land cover/use types include items such as "urban" or "industrial" to indicate that the land cover will be commercial, retail, residential and other types of urban or suburban development. These areas of "development" identified in common for all the ensembles constitute 14% of the study area. For the remaining land cover/uses that were common to all the ensembles, it was found that "Lehigh Acres", "Golden Gate Estates" and "Rural" land cover types are similar for all futures on 8.8% of the study area, "agricultural" on 5.4%, and "preservation" on 38.8%. For 25% of the study area, one or more of the Ensembles map a location as "preservation" while other Ensembles map the same location as "development", "agriculture", etc. For the remaining 8% of the study area, each Ensemble maps different land cover types. While there is agreement among the various futures for 67% of the study area, different land cover/use is envisioned for 33% of the study area (25%+8%) by the various Ensembles.

**Preferred Alternative(s)** This EIS provides information on cumulative impacts which will be useful for future permit decisions. This EIS provides information that will help the Corps (and possibly other agencies) to better carry out their responsibilities. However, this EIS does not make a decision on any particular permit application. This EIS does not change any law, regulation, or policy of the Corps.

Reviewing Future Permit Applications (Permit Review Criteria) From the list of evaluation factors and the extent of the reported effects, the Corps has drafted a Permit Review Map (Map) and Permit Review Criteria (Criteria). The Map is based on the Overlay of Alternatives discussed above; some locations were designated "development", others "preservation", etc. The Criteria provides several lists of questions: if

the proposed project located within a "preservation" location on the Map, the applicant will be asked the "preservation" list of questions; if the proposed project is in "development" the applicant will be asked a different set of questions; and so forth. The questions are designed to compare the project's contribution to the total predicted cumulative effect. The evaluation of the cumulative effect of an individual project will be recorded in the memoranda the Corps prepares for every individual permit decision. The Map does not designate the Corps permit decision. For example, if an application submitted proposes construction of a residential development and if the project site is shown as "preservation" on the Map, the Corps will still consider all the circumstances and design of the individual project prior to deciding whether to issue or deny a permit. The difference is that additional attention will be given to the application in order to answer the questions listed by the Criteria for "preservation." A draft is enclosed as Appendix G.

**Issues Raised by the Public and Agencies** A number of issues were identified by the Alternatives Development Group and others. These include the following: property rights; water management; water quality; ecosystem function; wildlife habitat; listed species; regulatory efficiency and effectiveness; economic sustainability; local land use policy; avoidance of wetland impacts; mitigation; cumulative/secondary impacts; restoration/retrofit; and public lands management/use.

**Areas of Controversy** Decisions on permit applications and implementation of various other laws to protect environmental resources may be in conflict with certain plans for development and other land use changes. In addition, the question has been raised as to how much restriction on use of private property is justified by the public benefit of environmental protection. As long as there are strong and diverse viewpoints on these issues there will be a degree of controversy.

Listening to Community Input (Comments) The Corps' decisions on applications to fill wetlands have impacts on other issues important to the community. The Corps hosted the Alternatives Development Group and is using the Environmental Impact Statement (EIS) process to obtain public input in order to improve its understanding of these issues and to "fit into" the Comprehensive Plans, particularly where the Counties have deferred to or referenced the Corps on wetlands. Comments on the content of this Draft of the EIS will be used to revise the Draft and prepare a Final EIS. The Corps will then prepare a Record of Decision describing and decisions resulting from the EIS.

**Unresolved Issues** This EIS does not result in a decision on any particular permit application. It does explore the cumulative impact of the Corps regulatory decisions and decisions by others for the study area and provide information useful in determining the cumulative impacts of individual permit decisions. Each permit application will continue to be addressed on a case-by-case basis in accordance with laws and regulations. Similarly, the areas of controversy will be addressed on a case-by-case basis in accordance with applicable laws and regulations. The Corps recognizes that this EIS represents just one step in the development of an appropriate analysis that can appropriately describe the many interrelationships of wildlife and other issues across the landscape. The Corps is committed to, after the publication of this Draft EIS, working with the U.S. Fish and Wildlife Service to develop more detailed analysis tools to be ultimately incorporated into the Corps' decision processes. For example, there are fairly specific guidelines for protection of bald eagle nests from construction and other activities in the vicinity of the nest. There is no similar document (with such specificity) for many of the other evaluation factors. Once the detailed analysis tools are available to be used in project development and design, then these can be applied not only to review of applications but also to a re-evaluation of the predicted total change in the landscape to the extent that adverse impacts to listed species cannot be avoided and if adverse effects as defined by the Endangered Species Act remain, formal consultation may become necessary.